

ABSTRACT OF THE DISCLOSURE

In order that an amplifier with a gain proportional to source voltage is obtained, the drain-source voltages of first and second P-channel MOS-FETs are zero-biased, and a voltage shifted higher by the amount of the threshold voltage of the P-channel MOS-FET on the basis of a voltage obtained by dividing the power source voltage by resistors is applied to the positive input terminal of an operational amplifier. The gate of one of the first and second MOS-FETs is connected to a circuit ground, and a negative fixed voltage with reference to the potential obtained by dividing the power source voltage by resistors is applied to the gate of the other MOS-FET. The ON resistances of the two MOS-FETs are used as the input resistor and the feedback resistor of the operational amplifier, respectively.